

REMARKS

Favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

I. CLAIM STATUS & AMENDMENTS

Claims 1, 3-6, 8, 9 and 11-25 were pending in this application when last examined.

Claims 1, 3-6, 8, 9, 11-13, 24 and 25 were examined on the merits and rejected.

Claims 14-23 were withdrawn as non-elected subject matter.

Claim 1 is amended to incorporate the subject matter of claims 5 and 9.

Claims 5 and 9 have been cancelled without prejudice or disclaimer thereto. Applicants reserve the right to file a divisional or continuation application on any cancelled subject matter.

No new matter has been added.

Claims 1, 3, 4, 6, 8 and 11-25 are pending upon entry of this amendment.

II. ADVISORY ACTION

On page 2 of the Advisory Action of September 28, 2006, it was indicated that the arguments in the last response filed August 31, 2006 were unpersuasive, because they are directed to the same issues presented in the final Action.

This position is respectfully traversed. In particular, it appears that the Office has not considered the new arguments in the last response rebutting the Office's position in the final Office Action that "paraffin is a culture medium." As argued in the last response, paraffin is not a culture medium as evidenced by the dictionary definition attached to the last response. The Office did not fully addressed this argument with respect to the traversal of the prior art rejections. See below.

III. ANTICIPATION REJECTION

On pages 2-4 of the final Office Action of March 1, 2006, claims 1, 3-6, 8, 9, 11-13 and 24-25 were rejected under 35 U.S.C. § 102(b) as anticipated by Ried et al. (US 5,919,624).

This rejection is respectfully traversed as applied to the amended claims. The arguments set forth in the last response are reiterated herewith.

As noted above, on page 2 of the Advisory Action, the Office has taken the position that the arguments in the last response filed August 31, 2006 were unpersuasive, because they are directed to the same issues presented in the final Action. It is again respectfully submitted that the Office appears to have overlooked the new arguments in the last response rebutting the Office's position in the final Office Action that "paraffin is a culture medium." As argued in the last response, paraffin is not a culture medium as supported the dictionary definition attached to the last response. Please address this traversal of the rejection.

Again, as recognized in the art field, "paraffin" is not a "culture medium." Please see the online-dictionary definitions of these terms attached to the last response.

As shown therein, "culture medium" is generally defined as a liquid or gelatinous substance containing nutrients in which microorganisms or tissues are cultivated for scientific purposes.

On the other hand, "paraffin" is generally defined as a waxy white or colorless solid hydrocarbon mixture used to make candles, wax paper, lubricants, and sealing materials. While paraffin is often used for fixing in order to form tissue sections, it is not a "culture medium."

Based on such art recognized definitions, it is clear that the art field recognizes the "paraffin" is not a "culture medium" as they are not equivalent terms. Therefore, the Office's characterization of "paraffin" in the last Office Action contrasts with its recognized meaning in the art. The Office is respectfully requested to consider this argument and point to the support in the cited references or in the art field that "paraffin" as used in Ried is a "culture medium."

Thus, it is again respectfully submitted that the tissue section in Ried does not contain a culture medium, because the disclosed paraffin is not a culture medium. Accordingly, the tissue sections in Ried are not in contact with a culture medium. As a result, the tissue section in Ried does not contain the culture medium. Consequently, the tissue section in Reid does not have the property of being easy to handle for cell culture, which is a property of the present invention. Therefore, Ried fails to disclose each and every element in the claimed invention, which is a requirement for anticipation.

In view of the above, it is again respectfully submitted that Ried fails to teach each and every limitation.

Therefore, the 102(b) anticipation rejection of claims 1, 3-6, 8, 9, 11-13 and 24-25 over Ried is untenable and should be withdrawn.

IV. OBVIOUSNESS REJECTION

On pages 4-6 of the final Office Action, claims 1, 3-6, 8, 9, 11-13 and 24-25 were again rejected under 35 U.S.C. § 103(a) as obvious over Badylak et al. (WO 99/12555) and Mori et al. (Anat. Embryol., Vol. 199, pp. 319-327, 1999) taken with Ried et al. (US 5,919,624) and Sitte (US 3,785,234).

This rejection is respectfully traversed as applied to the amended claims. The arguments set forth in the last response are reiterated herewith.

Again, claim 1 requires that the tissue section be rinsed with a culture medium and comprises the culture medium. For the same reasons noted above, it is respectfully submitted that the cited prior art references fail to disclose or suggest this element of the claimed invention. For this reason alone, the cited references do not render obvious the claimed invention.

The deficiencies set forth above in Ried are reiterated herewith. Again, the tissue section in Ried does not contain a culture medium as “paraffin” is not a culture medium.

Furthermore, as noted in the last response, WO 99/12555 is directed to the use of submucosal tissue which is enzymatically treated with galactosidase which can be implanted to replace or support damaged or diseased tissues or to form a cell culture growth substrate. The submucosal tissue has a thickness of about 100 to 200 μm and consists primarily of acellular, extracellular matrix material. See the Abstract and page 4, lines 30-32.

There is no suggestion in the reference that other tissue sections from animals or plants may be used as a cell culture growth substrate, nor that the cell culture substrate may have a thickness of from 0.5 to 50 μm .

There is also no suggestion of a rinsing step with a culture medium, such that a culture medium remains in the tissue section as in the present invention.

Mori also fails to disclose or suggest the use of an animal-derived or plant-derived tissue section in a thickness of 0.5 to 50 μm used as a substrate for seeding and culturing animal cells. Instead, Mori describes cutting neonatal mouse liver tissues into 250 μm slices and culturing the tissue to maintain the parenchymal cells and ontogenesis and to investigate their proliferation and differentiation. There is no teaching or suggestion of using the tissue section as a cell culture substrate.

The Sitte patent is directed to devices for cutting thin tissue sections.

No where in the combined teachings of the cited references is there a suggestion for a tissue section-containing carrier derived from animal or plant, for seeding and culturing animal cells, wherein the tissue section having thickness of 0.5 to 50 μm is adhered to a support and rinsed with a culture medium and further comprises the culture medium.

In response to the Office's previous arguments that it would have been obvious to optimize or modify the thickness of the tissue section to obtain a thickness of 0.5 to 50 μm , kindly note that a thickness of 100 to 200 μm in WO 99/12555 and a thickness of 250 μm in Mori are no where close to suggesting a thickness of 0.5 to 50 μm as in the present invention. Given the huge discrepancies in the thickness, it would seem that the claimed thickness of 0.5 to

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50 μm would not be routinely optimized as suggested by the Office. In fact, it could be said that the art actually teaches away from using the claimed thickness of 0.5 to 50 μm .

In view of the above, the 103(a) obviousness rejection of claims 1, 3-6, 8, 9, 11-13 and 24-25 is untenable and should be withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and early notice to that effect is hereby requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact the undersigned attorney at the telephone number below.

Respectfully submitted,

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